







FACTORS ASSOCIATED WITH SEXUAL HEALTH IN PATIENTS SUBJECTED TO BARIATRIC SURGERY

FATORES ASSOCIADOS À SAÚDE SEXUAL EM PACIENTES SUBMETIDOS À CIRURGIA BARIÁTRICA

FACTORES ASOCIADOS CON LA SALUD SEXUAL DE PACIENTES SOMETIDOS A CIRUGÍA BARIÁTRICA

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ABSTRACT

Objective: to investigate the factors associated with the sexual health of patients subjected to bariatric surgery. **Methods:** this is a cohort performed with 387 patients who were subjected to bariatric surgery between the years 2012 and 2014, in a general and private hospital in *Minas Gerais*. The information was collected through electronic medical records and the telephone. **Results:** women (87.60%); brown (self-declared) color (49.84%); with education from 11 to 14 years (32.57%); lived with a partner (69.06%); and average income of one to three minimum wages per household (54.79%). Median age was 36 years (IQ=30-43). When analyzing the improvement in sexual performance after THE SURGICAL PROCEDURE, 214 (71.33%) OF THE PATIENTS HIGHLIGHTED IMPROVEMENT in this aspect. Of these, 32 (14.95%) were male and 182 (85.04%) were female. Sociodemographic factors in the studied scenario, except for age in males, showed no statistical difference in the improvement of sexual performance after bariatric surgery. **Conclusion:** surgical treatment can have a positive impact on the patient's sexual life and these results can alert health institutions to optimize their assistance. Thus, health professionals, especially nurses, play a fundamental role in understanding what factors are associated with improving patients' sexual lives, allowing the prevention of complaints and effective intervention measures. **Keywords:** Bariatric Surgery; Obesity; Epidemiology; Sexual Health.

RESUMO

Objetivo: investigar os fatores associados à saúde sexual de pacientes submetidos à cirurgia bariátrica. **Métodos:** trata-se de uma coorte realizada com 387 pacientes submetidos à cirurgia bariátrica entre os anos de 2012 e 2014, em um hospital geral e privado de Minas Gerais. As informações foram coletadas por meio dos prontuários eletrônicos e do telefone. **Resultados:** mulheres (87,60%); cor (autodeclarada) parda (49,84%); com escolaridade de 11 a 14 anos (32,57%); convivia com companheiro (69,06%); e renda média de um a três salários mínimos por domicílio (54,79%). Mediana de idade foi de 36 anos (IQ=30-43). Ao analisar a melhora no desempenho sexual após o procedimento cirúrgico, 214 (71,33%) dos pacientes ressaltaram melhora nesse aspecto. Destes, 32 (14,95%) eram do sexo masculino e 182 (85,04%) eram do sexo feminino. Fatores sociodemográficos no cenário estudado, exceto idade em sexo masculino, não mostraram diferença estatística na melhora do desempenho sexual após a cirurgia bariátrica. **Conclusão:** o tratamento cirúrgico pode ter impacto positivo na vida sexual do paciente e esses resultados podem alertar as instituições de saúde para otimizar sua assistência. Assim, profissionais de saúde, especialmente os enfermeiros, exercem papel fundamental na compreensão de quais são fatores são associados

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à melhoria da vida sexual dos pacientes, permitindo a prevenção de queixas e medidas efetivas de intervenção.

Palavras-chave: Cirurgia Bariátrica; Obesidade; Epidemiologia; Saúde Sexual.

RESUMEN

Objetivo: investigar los factores asociados con la salud sexual de los pacientes sometidos a cirugía bariátrica. **Métodos:** estudio de cohorte realizado con 387 pacientes que sometidos a cirugía bariátrica entre 2012 y 2014, en un hospital general privado del estado de Minas Gerais. La información se recogió a través de registros médicos electrónicos y de llamadas telefónicas. **Resultados:** mujeres (87,60%); color de piel (autodeclarada) parda (49,84%); con escolaridad de 11 a 14 años (32,57%); en pareja (69,06%); e ingresos promedio de uno a tres salarios mínimos por domicilio (54,79%), edad promedio de 36 años (coeficiente intelectual = 30-43). Al analizar la mejora en el rendimiento sexual después del procedimiento quirúrgico, 214 (71,33%) de los pacientes confirmaron haber mejorado. Entre ellos, 32 (14,95%) eran hombres y 182 (85,04%) mujeres. Los factores sociodemográficos en el escenario estudiado, excepto la edad en los hombres, no mostraron diferencias estadísticas en la mejora del rendimiento sexual después de la cirugía bariátrica. **Conclusión:** el tratamiento quirúrgico puede generar un impacto positivo en la vida sexual del paciente lo cual puede hacer notar a las instituciones de salud la importancia de optimar su asistencia. Los profesionales de la salud, sobre todo los enfermeros, desempeñan un rol fundamental en la comprensión de los factores asociados con la mejora de la vida sexual de los pacientes, permitiendo la prevención de quejas y medidas de intervención efectivas.

Palabras clave: Cirugía Bariátrica; Obesidade; Epidemiología; Salud Sexual.

INTRODUCTION

Obesity is on the rise worldwide. The World Health Organization (WHO)¹ estimates that 600 million people are obese, equivalent to 13.0% of the world population. In addition, obesity is the main nutritional problem in high-income countries, representing one of their biggest public health problems.²

In Brazil, 18.9% of Brazilians are obese, with the prevalence of overweight being 57.7% in men and 50.5% in women.^{3,4} Data from the Risk Factors Surveillance System and Protection for Chronic Diseases by Telephone Survey (VIGITEL)³ reveal that the proportion of obese people in the Brazilian population grew 60.0% from 2006 to 2016 and that 55.7% of the Brazilian population were overweight and 19.8% of Brazilians had obesity.

The obese individual, fleeing from the imposed aesthetic standard, often feels marginalized in society, which directly affects their self-esteem and confidence in affective relationships.⁵ This marginalization also makes obesity an interference for the individual

in the social role, as a subject and, particularly, in the experience of his sexual life - since the body is also conceived with the objective of affirming identity. Obesity is associated with several comorbidities, and much of the impact on the sexual health of obese patients is caused by aspects of the psychosocial realm, such as feelings of rejection, low self-esteem, feelings of inferiority and negative perception of body image. These issues can negatively influence the sexuality experienced by these individuals, thus affecting the emotional and, consequently, sexual health.⁴

The WHO defines sexual health as a physical, emotional, mental and social state of well-being in relation to sexuality and is not merely the absence of disease, dysfunction or weakness. In addition to the body, sexuality involves feelings, life history, customs, affective relationships and culture. Therefore, it is a fundamental dimension of the lives of men and women. And when incorporated into health actions, it aims to contribute to improving people's quality of life.⁶

Sexuality in contemporary culture brings with it marks of standards and values, mainly associated with thin people.⁷ The body has become a capital, as advocated by Bourdieu, current fashion goes beyond designer clothes, the body itself is a fashion project and those who do not fit this aesthetic pattern are marginalized.⁷ Obesity becomes an interference for the individual to have recognized his/her social role, as a subject especially in the experience of sexual life.^{8,9}

In this context, it is emphasized that bariatric surgery (BS) is an effective measure for cases of severe obesity, with documented failure of clinical treatment. BS, according to the Federal Council of Medicine,¹⁰ is indicated in cases of body mass index (BMI) above 40 kg/m² or above 35 kg/m², in cases of patients with other diseases that worsen in the association with obesity.

BS can contribute to the improvement in the sexual health of patients submitted to it,¹¹ with a positive impact on their quality of life.¹² Surgery can also help the subject in his insertion in society, where he previously felt excluded.⁶ The weight reduction promotes increased satisfaction with body image, contributing to improve self-esteem and social life, reflecting positively on the experience of sexuality.⁴

It is also emphasized that health professionals, especially nurse(s), need to be prepared to guide their patients about aspects of sexual life. Health professionals, in general, find it difficult to address aspects related to the sexuality or sexual health of their patients. This is an issue that raises controversy, as the understanding of sexuality is marked by prejudices and taboos and health professionals do not feel prepared or feel uncomfortable in dealing with the issue. This topic is often not discussed during the process of academic training of these professionals. And when it is, the focus is on anatomical and pathological aspects, and psychosocial factors or the sexual needs of individuals are not addressed¹³, even though they are essential issues to enable professionals to have a comprehensive view of

the health problems commonly encountered in the population. Health professionals play a fundamental role in promoting sexual health and in identifying sexual difficulties and dysfunctions. Understanding what the factors are associated with improving patients' sexual life is important, as it contributes to improving the work of health professionals, enabling effective prevention and intervention measures.

In relation to this theme, there is a shortage of national works. Thus, it is understood that the study brings new perspectives regarding the impact of surgery on sexual life and, consequently, on comprehensive care for obese people. Given the above, the objective of this study was to investigate the factors associated with the sexual health of patients subjected to bariatric surgery.

METHOD

It is a cohort performed with 307 patients who were subjected to bariatric surgery between the years 2012 and 2014, in a general and private hospital in *Contagem, Minas Gerais*.

Data collection was performed by duly trained professionals and was divided into two stages. All patients who were subjected to bariatric surgery from 2012 to 2014 at that hospital were considered eligible. The first stage took place through a semi-structured questionnaire prepared by the researchers and the medical records of patients who were subjected to bariatric surgery in the years 2012 to 2014 as the data source was also used as database. In the second stage, the data were collected through telephone interviews with patients (in the first, second, third and fourth years after surgery). The researchers stipulated a three-month period for making calls, and unsuccessful calls were made at different times (morning, afternoon and night) at least three times each time on different days and on weekends. Follow-up losses are shown in Figure 1. It is noteworthy that sensitivity analyzes were performed between the final sample and the losses and, except for the self-reported skin color variable, no statistical difference was observed.

In this study, sociodemographic variables (gender, age, race, education, marital status and income), clinical variables (related to comorbidities and hospitalization - systemic arterial hypertension, diabetes *mellitus*, follow-up with a nutritionist, psychologist, postoperative time) were considered, epidemiological (weight, BMI) and lifestyle (nutritional habits, physical activity and physical inactivity), all existing in the data collection questionnaires in electronic medical records and in telephone interviews.

Data analysis was performed through the distribution of absolute and relative frequencies and the 95% confidence interval (95% CI) for categorical variables. Furthermore, for the comparison of the studied variables and the improvement in sexual performance after surgery (dependent variable) by sex, Pearson's chi-square test or Fisher's exact test was used. For continuous variables, the distribution symmetry was verified by the Shapiro-Wilk test. The results were presented by means and standard deviation (SD) for the variables that followed parametric and median distribution and interquartile range (IQ) for those with non-parametric distribution. To compare the median age and the outcome variable, the Mann-Whitney non-parametric test was used.

The results were presented in the form of tables. It is noteworthy that the totals of the numbers of the variables may vary, due to the absence of some data, for the variables studied.

The analyzes were performed using the Stata software, version 14.0. The significance level of 5% ($p < 0.05$) was adopted for all analytical procedures.

The study was approved by the Research Ethics Committee of the *Universidade Federal de Minas Gerais* (CAAE 52657115.2.0000.5149) and Opinion Report Nr. 1,503,789. All participants gave their verbal consent over the phone, in accordance with the ethical guidelines described in Resolution Nr. 466, of December 12, 2012, of the National Health Council, which involve research with human beings. It is noteworthy that the signing of the Free and Informed Consent Term (ICF) was waived, since the second phase of the research took place by telephone, making it impossible to sign.

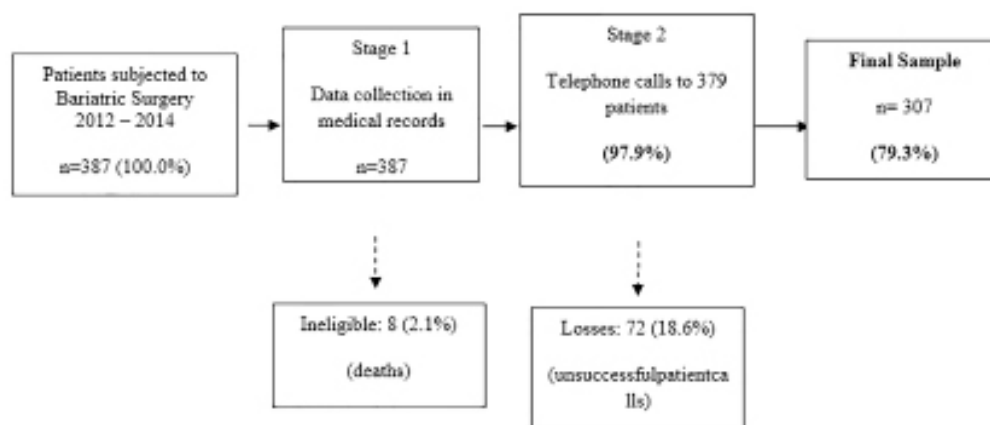


Figure 1 - Flowchart of sample losses - *Contagem, MG, Brazil, 2016*

RESULTS

The sample consisted mainly of women (87.62%). The median age of the participants was 36 years old (IQ=30-43), the majority declared themselves to be brown (49.84%), had 11 to 14 years of study (32.57%), lived with a partner (69.06%) and had an average income per household of one to three minimum wages (54.79%) (Table 1).

In the studied sample, on average, 29.92 months (SD=± 10.67) had passed since the surgery and 159 (51.79%) patients had more than two and a half years after the operation.

When analyzing the improvement in sexual performance after the surgical procedure, 214 (71.33%) of the patients reported that there was an improvement in this area of their life. Of these, 32 (14.95%) were male and 182 (85.04%) were female (data not shown).

Among men, the majority (62.50%) of those who reported improved sexual performance after bariatric surgery lived with a partner. The median age of those who reported improved sexual performance was 33.50 years (IQ=28-41). Most did not have psychological counseling (87.50%), accepted their physical

appearance (100%) and they were satisfied with themselves (100%). In addition, the largest proportion (92.86%) of these reported having a low frequency of negative thoughts (Table 2).

Of the group of women who improved their sexual performance after the surgical procedure, the majority (70.33%) lived with a partner. Their median age was 36 years (IQ 30-41). Most did not have psychological counseling (78.02%), accepted their physical appearance (98.35%) and were satisfied with themselves (98.13%). In addition, the largest proportion declared having a low frequency of negative thoughts (89.17%) (Table 2).

When comparing these factors with the improvement in sexual performance after bariatric surgery, male age showed a statistical difference (p-value <0.05) (Table 2).

Among the 214 patients who reported improved sexual performance, the perception of 170 is that the most common reason was identified as more energy and less tiredness (53.53%). Then, the improvement of self-esteem (25.29%), in all aspects (21.18%), will (10.00%) and physical capacity (2.35%), respectively. Three patients stated a decrease in

Table 1 - Sociodemographic characteristics of patients subjected to bariatric surgery - Contagem, MG, Brazil, 2016

Variable	N	%	IC95%*
Gender			
Male	38	12.380	09.12-16.58
Female	269	87.62	83.41-90.88
Age in years**	36 (30-43)		
Self-reported skin color			
White	102	33.22	28.15-38.72
Black	46	14.98	11.39-19.45
Brown	153	49.84	44.24-55.44
Yellow/Indigenous	6	1.95	00.88-04.30
Education (in years of study)			
1 to 3	6	1.97	00.88-04.34
4 to 7	66	21.71	17.41-26.73
8 to 10	62	20.39	16.21-25.33
11 to 14	99	32.57	27.50-38.07
> 15	71	23.36	18.91-28.47
Lives with a partner			
Yes	212	69.06	63.63-74.00
No	95	30.94	26.00-36.37
Average income per household***			
No income or up to 1 minimum wage	28	9.59	06.69-13.56
1 to 3 minimum wage	160	54.79	49.01-60.45
3 to 5 minimum wage	69	23.63	19.08-28.87
> 5 minimum wage	35	11.99	08.71-16.27

Notes: *Interval of confidence 95%. **Median (IQ). ***Average household income calculated based on the minimum wage: R\$788,00.

shame and two mentioned that “weight is no longer an issue” during sexual intercourse. Two others pointed out that there was an improvement in libido, in the duration of the sexual act and 1.18% obtained an improvement due to the increase in frequency. It is noteworthy that there was no limit to the number of responses, therefore, some patients described more than one reason that potentially caused an improvement in sexual performance after bariatric surgery (Figure 2).

DISCUSSION

This study analyzed the potential individual factors associated with sexual health in patients subjected to bariatric surgery in a general and private hospital, explaining that sociodemographic factors in the studied scenario, except for age in males, did not show significant differences in the improvement in sexual performance. This fact reinforces that the assistance provided by the multiprofessional team and the success of the surgical treatment can bring benefits to the operated patient’s sexual life. It was also observed that the majority of patients reported improved sexual performance after bariatric surgery, reinforcing that successful surgery can have positive impacts on the sexual life of the operated people.

A previous study¹⁴ demonstrated an association between depressive symptoms and reduced sexual performance for men and women, differently from the results found in this research. The same study also shows a statistical association between marital status for men and worse sexual function, a result not found in our study. In the present study, a higher median age was associated with no improvement in sexual performance in men. Although there are changes in the sexual function of men after bariatric surgery, with an increase in sexual desire and which reflects in the improvement of the quality of sexual life, advanced age in men is associated with worsening sexual function.¹⁴

Recent research reports the negative impact of psychological unpreparedness in the postoperative period on adherence to treatment and that some patients were unable to regain self-esteem, in addition to gaining weight again, favoring isolation and hindering the experience of sexuality.⁴ In our study, most of the sample showed improvement in sexual performance, but did not undergo psychological/psychiatric monitoring.

In this study, among the patients who showed improvement in sexual performance, one of the reasons was the decrease in the shame they felt about their bodies. It is known that more dissatisfaction with physical appearance implies a worse quality of sexual life.¹¹ Non-acceptance of one’s appearance produces anxiety

Table 2 - Comparison of improvement in sexual performance with individual variables after bariatric surgery - Contagem, MG, Brazil, 2016

Variable	Improvement in sexual performance after the surgical procedure					
	Male			Female		
	n(%)		p-value	n (%)		p-value
	Yes	No		Yes	No	
Liveswith a partner*	0.67			0.88		
Yes	20 (62.50)	5 (83.33)		128 (70.33)	57 (71.25)	
No	12 (37.50)	1 (16.67)		54(29.67)	23 (28.75)	
Age**	33.50 (28-41)	47.00 (44-60)	0.03***	36.00 (30.00-41.00)	38.00 (32.00-43.50)	0.06
Psychological/psychiatricmonitoring*	1.00			0.33		
Yes	4 (12.50)	1 (16.67)		40 (21.98)	22 (27.50)	
No	28 (87.50)	5 (83.33)		142 (78.02)	58 (72.50)	
Acceptanceofphysicalappearance*	1.00			0.15		
No	0(0.00)	0 (0.00)		3 (1.65)	4 (5.00)	
Yes	32 (100.00)	6 (100.00)		179 (98.35)	76 (95.00)	
Self-steem*				0.36		
No	-	-		3 (1.88)	3 (4.48)	
Yes	31 (100.00)	5 (100.00)		157 (98.13)	64 (95.52)	
Negative thoughts (bad mood, despair, anxiety,depression)*	1.00			0.05		
Lowfrequency	26 (92.86)	6 (100.00)		140 (89.17)	54 (79.41)	
High frequency	2 (7.14)	0 (0.00)		17 (10.83)	14 (20.59)	

Notes: *Pearson’s chi-square test or Fisher’s exact test; **median (IQ); ***p-value <0.05 (Mann-Whitney test).

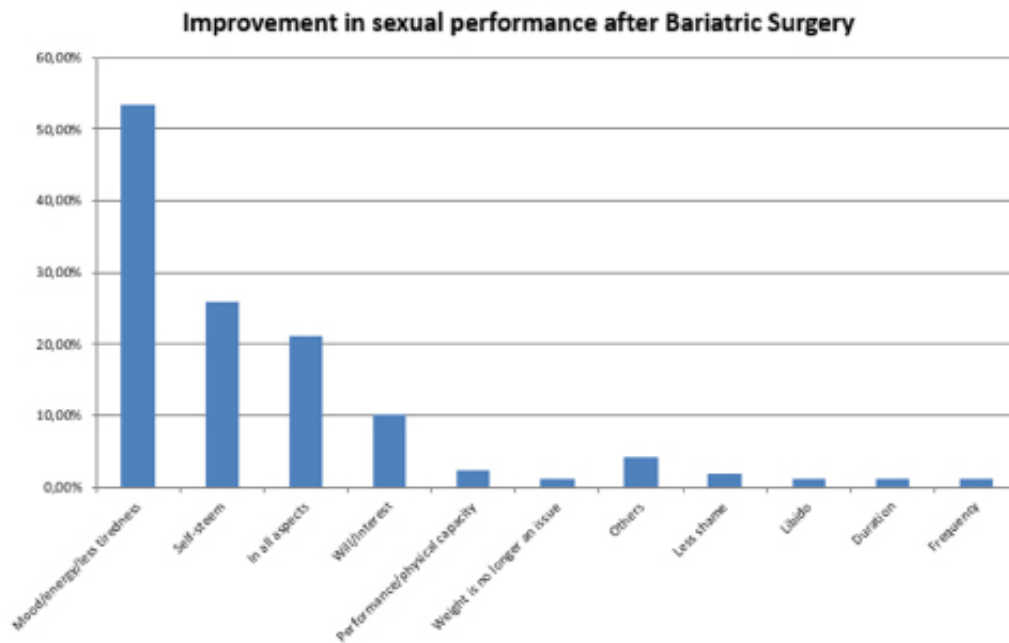


Figure 2 - Description of the main reported reasons that caused the improvement in sexual performance after Bariatric Surgery - Contagem, MG, Brazil, 2016
 Note: *Other category includes less frequent answers, with n=1. Type of responses: improvement in comfort, "looser", availability, vanity, willingness to show the body, psychological improvement and more flexibility.

in the obese person about being accepted by others and anxiety is one of the main factors of sexual dysfunction, especially in women.¹⁵

In this work, all the men in the sample and the majority (98.35%) of the women accept their physical appearance. It is emphasized that the alteration of body image can influence the appraisal of self-image, self-concept and, consequently, the subject's self-esteem. The individual's psychosocial behavior often benefits significantly after one year of surgery and the variation in behavior is directly related to the degree of weight loss.¹⁶ The weight reduction due to bariatric surgery makes women feel better about their bodies and themselves. This improvement in self-esteem and the decrease in anxiety can contribute to improvements in the sexual life of these women.¹⁷ In the speech of the women in this research who reported improvement in sexual performance after bariatric surgery, 25.29% attributed this difference to self-esteem. It is registered that, for a healthy and satisfactory sexual life, it is important to increase self-esteem through self-acceptance.⁴

Finally, in the testimonies of the sample of this study, other physiological factors that could potentially cause an improvement in sexual performance after the surgical procedure were also identified (such as increased energy/mood/less tiredness, increased sexual performance and libido, interference with decreased weight and increased duration of the sexual act) and psychosocial factors (more self-esteem, willingness/interest and less shame). Biological issues, especially fatigue, are factors of great influence on sexual experience. However, psychosocial factors were also mentioned, as women claim to be ashamed of themselves and perceive parts of

their bodies fleeing the aesthetic pattern, causing discomfort and decreasing the quality of sexual life.¹⁸

Lastly, it is important to consider some limitations of this study, including sample loss during data collection, which may have influenced the absence of statistical significance in some of the results presented. In addition, to our knowledge, there is a shortage of national works in private hospitals focused on the theme that present a large sample such as this work, making it difficult to compare the results found with those of the available international studies. It is relevant to note that sensitivity analyzes were performed between the losses and the final sample and, except for the color, no significant differences were found between them.

CONCLUSION

This study undoubtedly contributes to alert health professionals and institutions about the importance of qualified care and that meets the individual needs of each patient, particularly in relation to the sexual health of patients subjected to bariatric surgery.

Understanding the factors associated with improving patients' sexual life favors professionals to explore concepts and modify health policies and practices that aim at comprehensive care for people and, therefore, more resolute.

Finally, it is expected that undergraduate courses in the health area implement, based on the National Curriculum Guidelines, a curriculum that promotes the training of professionals attentive not only to biological aspects, but also to the psychosocial factors that affect the health of individuals.

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REFERENCES

1. World Health Organization (WHO). Obesity and Overweight. Geneva: WHO; 2017[cited 2019 Mar 28]. Available from: <https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight>
2. Palou A, Bonet ML. Challenges in obesity research. *Nutr Hosp*. 2013[cited 2019 Aug 21];28(5):144-53. Available from: <http://www.nutricionhospitalaria.com/pdf/6930.pdf>
3. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde, Departamento de Vigilância de Doenças e Agravos não Transmissíveis e Promoção da Saúde. Brasília: Ministério da Saúde; 2018[cited 2019 Aug 21]. Available from: <https://portal.arquivos2.saude.gov.br/images/pdf/2019/julho/25/vigitel-brasil-2018.pdf>
4. Mariano MLL, Paula MABD, Bassi DG, De Paula PR. Cirurgia bariátrica: repercussões na sexualidade da pessoa obesa. *Rev Col Bras Cir*. 2014[cited 2019 Aug 21];41(6):412-20. Available from: http://www.scielo.br/pdf/rBSc/v41n6/pt_0100-6991-rBSc-41-06-00412.pdf
5. Cardoso CMC, Costa ALRC. O peso de viver em um corpo obeso. *REME - Rev Min Enferm*. 2013[cited 2019 Aug 19];17(4):806-14. Available from: <http://www.reme.org.br/artigo/detalhes/888>
6. World Health Organization (WHO). Sexual health, human rights and the law. Geneva: WHO; 2015[cited 2019 Aug 13]. Available from: https://apps.who.int/iris/bitstream/handle/10665/175556/9789241564984_eng.pdf
7. Ministério da Saúde (BR). Cadernos de Atenção Básica. Saúde Sexual e Reprodutiva. Brasília: DF; 2010[cited 2019 Aug 15]. Available from: http://189.28.128.100/dab/docs/publicacoes/cadernos_ab/abcad26.pdf
8. Vilhena J, Novaes JV, Rocha L. Comendo, comendo e não se satisfazendo: apenas uma questão cirúrgica? Obesidade mórbida e o culto ao corpo na sociedade contemporânea. *Rev Mal-Estar Subj*. 2008[cited 2019 Aug 10];8(2):379-406. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1518-61482008000200006&lng=pt&nrm=iso
9. Camilo LF, Ribeiro DM. Redução de peso em pacientes submetidos a cirurgia bariátrica há no mínimo 12 meses. *Estudos PUC-GO*. 2014[cited 2019 Aug 11];41(2):201-13. Available from: <http://seer.pucgoias.edu.br/index.php/estudos/article/view/3378>
10. Conselho Federal de Medicina. Resolução CFM nº 2.131/2015. D.O.U. Seção I, 2016[cited 2019 Aug 21], p. 66. Available from: http://www.portalmedico.org.br/resolucoes/CFM/2015/2131_2015.pdf
11. Conason A, McClure Brenchley KJ, Pratt A, Geliebter A. Sexual life after weight loss surgery. *Surg Obes Relat Dis*. 2017[cited 2019 Aug 21];13(5):855-61. Available from: [https://linkinghub.elsevier.com/retrieve/pii/S1550-7289\(17\)30028-X](https://linkinghub.elsevier.com/retrieve/pii/S1550-7289(17)30028-X)
12. Oliveira DM, Mendes MAB, Jesus MCPD. A decisão da mulher obesa pela cirurgia bariátrica à luz da fenomenologia social. *Rev Esc Enferm USP*. 2014[cited 2019 Aug 21];48(6):970-6. Available from: http://www.scielo.br/pdf/reusp/v48n6/pt_0080-6234-reusp-48-06-0970.pdf
13. Santos LV, Campos MPA. Abordagem da sexualidade humana durante a graduação em enfermagem. *Nursing*. 2008[cited 2019 Feb 19];10(117):81-6. Available from: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IscScript=iah/iah.xis&src=google&base=LILACS&lang=p&nextAction=lnk&exprSearch=510745&indexSearch=ID>
14. Steffen KJ, King WC, White GE, Subak LS, Mitchell JE, Courcoulas AP, et al. Sexual function in men and women with severe obesity before bariatric surgery. *Surg Obes Relat Dis*. 2017[cited 2019 Jan 21];3(2):334-43. Available from: <https://dx.doi.org/10.1016%2Fj.soard.2016.09.022>
15. Lucena BBD, Abdo CHN. O papel da ansiedade na (dis)função sexual. *Diagn Tratamento*. 2013[cited 2019 Feb 18];18(2):94-8. Available from: <http://files.bvs.br/upload/S/1413-9979/2013/v18n2/a3614.pdf>
16. Segura DCA, Corral JP, Wozniak SD, Scaravonatto A, Vandresen EP. Análise da imagem corporal e satisfação com o peso em indivíduos submetidos à cirurgia bariátrica. *Rev Pesq Saúde*. 2016[cited 2019 Jan 18];17(3):170-4. Available from: <http://www.periodicoseletronicos.ufma.br/index.php/revistahuufma/article/view/6791>
17. Janik MR, Bielecka I, Paśnik K, Kwiatkowski A, Podgórska L. Female sexual function before and after bariatric surgery: a cross-sectional study and review of literature. *Obes Surg*. 2015[cited 2019 Feb 12];25(8):1511-7. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC25990378/>
18. Cecílio HPM, Sanches RCN, Radovanovic CAT, Marcon SS. Percepções de mulheres obesas sobre a sexualidade. *REME - Rev Min Enferm*. 2014[cited 2019 Jan 15];18(4):955-60. Available from: <http://www.reme.org.br/exportar-pdf/975/v18n4a14.pdf>

